

Exhibit D

Appl. No. 90/011,233

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : John B. ADRAIN
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Title : 1st Reexamination of Patent No. 5,831,669

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Examiner : Henry N. TRAN

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Ex Partes Reexamination
Commissioner for Patents
Alexandria, VA 22313-1450

AMENDMENT B in EX PARTES REEXAMINATION OF U.S.Pat. No. 5,831,669

Sir:

This amendment is filed in response to the Office action of November 23, 2011, which was made final, the response for which is due on January 23, 2012. It is requested that the timely filing of this response be construed to extend the statutory period by an additional month, to February 23, 2012.

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Status of Claims and Support for Claim Changes begin on page 11 of this paper.

List of Prior of Concurrent Proceedings are on page 13 of this paper.

Remarks/Arguments begin on page 14 of this paper.

Proof of Service begins on page 21 of this paper.

Appl. No. 90/011,233

Claims

Please amend the claims as provided below, according to Rule 530.

1. (twice amended) A monitoring system comprising:

a movably mounted digital camera adapted for receiving images of a space to be monitored for directly outputting digital image data;

an interpreter for receiving said digital image data from the digital camera;

a reference memory for storing reference image data;

a comparator connected for comparing image data from the interpreter to image data from the reference memory according to selected comparison criteria, wherein the interpreter and comparator cooperate to select recognizable portions of image data among unrecognized portions of image data in the space being monitored, the selected image portions being compared to the image data in the reference memory; and

an output interface for reporting results of the image data comparisons performed by the comparator.

11. (twice amended) A monitoring system comprising:

a movably mounted digital camera adapted for receiving images of a space to be monitored for directly outputting digital image data;

an interpreter for receiving said digital image data from the digital camera;

a reference memory for storing reference image data for plural images and a comparator adapted for comparing

image data from the interpreter to image data for the plural images from the reference memory according to selected comparison criteria, wherein the interpreter and comparator cooperate to select recognizable portions of image data among unrecognized portions of image data in the space being monitored, the selected image portions being compared to the image data in the reference memory; and

an output interface for reporting results of the image data comparisons performed by the comparator.

21. (amended) The monitoring system of claim 1, wherein said digital camera is adapted to receive images using RADAR, thermal, or infrared detection or for receiving images through an opaque material.

24. (amended) The monitoring system of claim 1, wherein said digital camera is mounted on a vehicle and wherein said images include images of a license plate on an additional vehicle and wherein said images also include images of the additional vehicle, and further wherein said recognizable images include images for identifying alphanumeric characters on said license plate and also include images for identifying a characteristic of said additional vehicle.

25. (amended) The monitoring system of claim 11, wherein said digital camera is adapted to receive images using RADAR, thermal, or infrared detection or for receiving images through an opaque material.

29. (amended) The monitoring system of claim 11, wherein said digital camera is mounted on a vehicle and

wherein said images include images of a license plate on an additional vehicle and wherein said images also include images of the additional vehicle, and further wherein said recognizable images include images for identifying alphanumeric characters on said license plate and also include images for identifying a characteristic of said additional vehicle.

30. (amended) A monitoring system comprising:

a movably mounted camera adapted for receiving images of a space to be monitored by detecting RADAR, thermal, or infrared images or for detecting images through an opaque material;

an interpreter for receiving image data from the camera;

a reference memory for storing reference image data;

a comparator connected for comparing image data from the interpreter to image data from the reference memory according to selected comparison criteria, wherein the interpreter and comparator cooperate to select recognizable portions of image data among unrecognized portions of image data in the space being monitored, the selected image portions being compared to the image data in the reference memory; and

an output interface for reporting results of the image data comparisons performed by the comparator.

42. (amended) A system according to claim 30 wherein infrared images are detected by said camera.

43. (amended) A system according to claim 30 wherein RADAR images are detected by said camera.

44. (amended) A system according to claim 30 wherein images through an opaque material are detected by said camera.

45. (amended) A monitoring system comprising:

a movably mounted camera adapted for receiving images of a space to be monitored by detecting an image through an opaque material;

an interpreter for receiving image data from the camera;

a reference memory for storing reference image data for plural images and a comparator adapted for comparing image data from the interpreter to image data for the plural images from the reference memory according to selected comparison criteria, wherein the interpreter and comparator cooperate to select recognizable portions of image data among unrecognized portions of image data in the space being monitored, the selected image portions being compared to the image data in the reference memory; and

an output interface for reporting results of the image data comparisons performed by the comparator.

46. (amended) A system according to claim 45 wherein the camera detects images using infrared light.

47. (amended) A system according to claim 45 wherein the camera detects images using a RADAR signal.

48. (amended) A system according to claim 45 wherein the wherein the camera detects thermal images.

50. (amended) A monitoring system comprising:
a movably mounted camera adapted for receiving images of a space to be monitored;
an interpreter for receiving image data from the camera;
a reference memory for storing reference image data;
a comparator connected for comparing image data from the interpreter to image data from the reference memory according to selected comparison criteria, wherein the interpreter and comparator cooperate to select recognizable portions of image data among unrecognized portions of image data in the space being monitored, the selected image portions being compared to the image data in the reference memory to detect movement of an object; and
an output interface for reporting results of the image data comparisons performed by the comparator, wherein images that have changed in the space are detected and stored in a memory.

51. (amended) A monitoring system comprising:
a first movably mounted camera adapted for receiving images of a space to be monitored;
a second camera adapted for receiving additional images of the space;
an interpreter for receiving image data from the first and second cameras;

a reference memory for storing reference image data;

a comparator connected for comparing image data from the interpreter to image data from the reference memory according to selected comparison criteria, wherein the interpreter and comparator cooperate to select recognizable portions of image data among unrecognized portions of image data in the space being monitored, the selected image portions being compared to the image data in the reference memory; and

an output interface for reporting results of the image data comparisons performed by the comparator, wherein

images that have changed in the space are detected and stored in a memory.

53. (amended) A monitoring system comprising:

a first movably mounted camera adapted for receiving images of a space to be monitored for monitoring certain characteristics of the space;

a second camera adapted for receiving additional images of the space for monitoring different characteristics of the space;

an interpreter for receiving image data from the first and second cameras;

a reference memory for storing reference image data;

a comparator connected for comparing image data from the interpreter to image data from the reference memory according to selected comparison criteria, wherein the interpreter and comparator cooperate to select recognizable portions of image data among unrecognized portions of image

data in the space being monitored, the selected image portions being compared to the image data in the reference memory; and

an output interface for reporting results of the image data comparisons performed by the comparator

56. (amended) A monitoring system comprising:

a movably mounted camera adapted for receiving images of a space to be monitored;

an interpreter for receiving image data from the camera;

a reference memory for storing reference image data for plural images and a comparator adapted for comparing image data from the interpreter to image data for the plural images from the reference memory according to selected comparison criteria, wherein the interpreter and comparator cooperate to select recognizable portions of image data among unrecognized portions of image data in the space being monitored, the selected image portions being compared to the image data in the reference memory by determining a correlation between pixels; and

an output interface for reporting results of the image data comparisons performed by the comparator, , wherein

images that have changed in the space are detected and stored in a memory.

57. (new) A system according to claim 30 wherein thermal images are detected.

58. (new) A monitoring system comprising:

a movably mounted digital camera adapted for receiving images of a space to be monitored for outputting digital image data;

an interpreter for receiving said digital image data from the digital camera;

an additional camera for receiving images for outputting to said interpreter;

a reference memory for storing reference image data;

a comparator connected for comparing image data from the interpreter to image data from the reference memory according to selected comparison criteria, wherein the interpreter and comparator cooperate to select recognizable portions of image data among unrecognized portions of image data in the space being monitored, the selected image portions being compared to the image data in the reference memory; and

an output interface for reporting results of the image data comparisons performed by the comparator, wherein

said additional camera is used with said digital camera such that the received images are three-dimensional images.

59. (new) A monitoring system comprising:

a movably mounted digital camera adapted for receiving images of a space to be monitored for outputting digital image data;

an interpreter for receiving said digital image data from the digital camera;

an additional camera for receiving images for

outputting to said interpreter

a reference memory for storing reference image data for plural images and a comparator adapted for comparing image data from the interpreter to image data for the plural images from the reference memory according to selected comparison criteria, wherein the interpreter and comparator cooperate to select recognizable portions of image data among unrecognized portions of image data in the space being monitored, the selected image portions being compared to the image data in the reference memory; and

an output interface for reporting results of the image data comparisons performed by the comparator, wherein

said additional camera is used with said digital camera such that the received images are three-dimensional images.

Status of Claims and Support for Claim Changes

Claims 2-10, 12-20, 22-23, 26-28, 31-41, 49, 51-52, 54-55, have not been amended in this response.

Claims 1 and 11 have been further amended to recite that the digital camera is for directly outputting digital image data. This is supported at least by col. 3, lines 14-20 of the specification.

Claims 21, 25, 30, is amended to recite that the digital camera is adapted to receive images using "RADAR, thermal, or infrared detection or for receiving images through an opaque material". This is supported by col. 3, lines 20-21 and col. 6, lines 10-19 of the specification. Claims 42, 43, 44-46, and 48, have been amended to recite receiving images using RADAR, infrared, thermal, or through an opaque material, and thus are similarly supported by col. 3, lines 20-21 and col. 6, lines 10-19. New claim 57 reciting the detection of thermal images is supported by col. 6, lines 10-19.

Claim 24, was amended to recite the use of images for identifying a characteristic of the vehicle, which is supported by col. 5, lines 44-50.

Claims 50, 51, and 56 have been amended to recite that "images that have changed in the space are detected and stored in a memory". This is supported by the specification at col. 3, lines 62-67.

Claim 53 has been amended to recite that the first camera is "for monitoring certain characteristics of the space" whereas the second camera is "for monitoring different characteristics of the space." This is supported by the specification at col. 3, lines 25-27.

New claims 58 and 59 have the same limitations of claims 23 and 27, and

all intervening claims, respectively, of the prior response put into independent format.

Prior or Concurrent Proceedings

The following list of lawsuits with current status are related to U.S. Pat. No. 5,831,669:

John Adrain v Genetec Inc., *et al.* Eastern District of Texas Case. No. 2:08-cv-423. Case closed.

John Adrain v Tannery Creek Systems, Inc. *et al.* Eastern District of Texas Case. No. 2:09-cv-326. Case closed (no current activity).

John Adrain v NDI Technologies, Inc. *et al.* Middle District of Florida Case No. 6:10-cv-1059. Case closed (no current activity).

John Adrain v Vigilant Video Inc., *et al.* Eastern District of Texas Case. No. 2:10-cv-173 – Action currently pending.

ARGUMENTS/REMARKS

Applicants would like to thank the examiners for the careful consideration given the present application, and for the personal interview conducted on July 27, 2011. The application has been carefully reviewed in light of the current Office action and that prior interview, and favorable reconsideration of the subject application is requested in view of the comments and amendments made herein.

Summary of Proceedings & Amendments

Claims 1-3 and 7-11 are subject to re-examination. Claims 4-6 and 12-20 are not subject to re-examination. Claims 1, 11, 21, 24-25, 29-30, 42-48, 50-51, 53, and 56 are amended herein. New claims 57-59 are added without adding any new matter and without broadening the scope of the originally granted claims.

Remarks Regarding Finality of Action and Rule 116(b).

Applicant believes that the finality of this action is premature. At the personal interview conducted with the Examiner, along with supervisory examiners Eric Keasel and Andrew Nalven, proposed amendments to the claims were discussed in detail, as reflected by the interview agenda. At that interview, the examiners were not able to state whether the proposed claim amendments would, in their opinions, be sufficient to overcome the rejections, but would require further study. Accordingly applicant's representative, the undersigned, specifically requested that if the proposed claim amendments to be filed in this case were subsequently determined to be in any way unacceptable, that the Examiner would contact applicant's representative to discuss additional amendments to satisfy any concerns of the examiners. This is in the spirit of the MPEP, which states that:

Both the patent owner and the examiner should recognize that a reexamination proceeding may result in the final cancellation of claims from the patent and that the patent owner does not have the right to renew or continue the proceedings by refiling under 37 CFR 1.53(b) or 1.53(d) or former 37 CFR 1.60 or 1.62, nor by filing a request for continued examination under 37 CFR 1.114. Complete and thorough actions by the examiner coupled with complete responses by the patent owner, including

early presentation of evidence under 37 CFR 1.131 or 1.132, will go far in avoiding such problems and reaching a desirable early termination of the reexamination prosecution.

MPEP §2272. Thus, applicant provides amendments in this response that would have been proposed to the Examiner prior to the issuance of a final action had the Examiner contacted applicant's representative as discussed at the personal interview.

Hence, applicant asserts under Rule 116(b)(3) that the reason that these amendments were not presented earlier was because the examiners requested that the amendments proposed at the personal interview be formally filed in this case so that the Examiner assigned to the case could evaluate them, with the proviso that should those amendments be determined to not be sufficient to overcome the rejections, that the Examiner would work with applicant to overcome those problems. This was done both for the convenience of the examiners and the applicant. Accordingly, it is requested that the Examiner accept the proposed amendments for further examination, and that the Examiner contact applicant's representative to finalize the claim language, if required.

Claim Rejections

Double Patenting:

The Examiner has indicated that claim 49 is a duplicate of claim 50, that claim 51 is a duplicate of claim 53, and that claim 55 is a duplicate of claim 56. Claims 50, 51, 53, and 56 have been amended to recite features to distinguish the claims from each other, and thus the rejection for double patenting is moot.

Claims 21, 24-25, and 29-48 were rejected under 35 U.S.C. §112, first paragraph, for failing to comply with the written description requirement, and claims 21, 24-25, and 29-48 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite.

Claims 21, 25, and 30, have been amended to recite that the camera is adapted to receive images "using RADAR or infrared detection or for receiving images through an opaque material". This is clearly supported by col. 3, lines 20-21, which discusses the use of infrared cameras, and col. 6, lines 10-19 of the specification, which discusses

images that are obtained using radar, thermal images, and images through opaque materials. Thus, these claims, as amended, comply with the written description requirement and are not indefinite, and thus their rejection should be withdrawn.

Claims 42, 43, 44-46, and 48, have been amended to recite receiving images using RADAR, thermal, or infrared, imaging, or imaging through an opaque material, and thus are similarly supported by col. 3, lines 20-21 and col. 6, lines 10-19, as discussed above, and thus comply with the written description requirement and are not indefinite, and therefore their rejection should be withdrawn..

Claims 24 and 29 have been amended to recite that recognizable images include images for “identifying a characteristic of said additional vehicle”. The specification discusses that the camera system can be used to monitor the object vehicles in addition to the license plates (see col. 5, lines 35-36), such as the color and general outline of the vehicle, for analysis (lines 38-39). Thus, characteristics of the vehicle are also monitored, and thus these claims comply with the written description requirement and are not indefinite, and thus their rejection should be withdrawn.

Claims 1-3, 7-11, 28, 49-50, and 55-56 were rejected under 35 U.S.C. §103(a) as being unpatentable over Netravali *et al.* (U.S. 4,611,347) in view of Hwang (U.S. 5,425,108). Claims 22, 26, and 51-54 were rejected under 35 U.S.C. §103(a) as being unpatentable over Netravali in view of Hwang, and in further view of Boyette (U.S. 5,097,328). For the following reasons, the rejections are respectfully traversed.

As discussed in detail at the personal interview, claims 1 and 11 recite that the camera is a *digital* camera, and the claims have been further amended to recite that the camera *directly* outputs digital image data. At the personal interview, this feature was discussed, and it was pointed out that the cited prior art clearly utilized analog cameras, and did not suggest the use of any digital cameras, and the examiners agreed to consider this distinction if provided in the claim language.

In contrast, as discussed at the interview, the Netravali camera clearly outputs *analog* image data, as an A/D converter 202 is provided at the output of the camera 203,

as shown in Fig. 2, and as discussed at col. 2, lines 65-68. Thus, Netravali fails to teach the use of a digital camera for directly outputting digital image data.

In response, the Examiner apparently argues that because Netravali teaches the use of an A/D digitizer 202, that the reference teaches the use of a digital camera. However, regardless of whether a digital camera utilizes a digitizer to obtain its digital output, the camera of Netravali clearly does not *directly* output digital images, but instead it must output analog images, as taught by FIG. 2, showing the camera 203 output directly feeding the frame buffer 102 with digitizer 202. There would be no need to input the output of the camera 203 into a digitizer if the output of the camera were digital. Thus, it is clear that the claim language fails to literally read on this reference. The Examiner has failed to provide any rationale for substituting a digital camera for the analog camera of Netravali despite the fact that the reference does not teach the use of a digital camera.

Furthermore, it is not equivalent to the Netravali teaching to provide a digital camera or an A/D converter internal to the camera. In particular, where, as in this case, the reference utilizes analog images as part of its analysis. Netravali teaches the use of a video disc 101 that is connected to the A/D digitizer 202. One skilled in the art would understand that video disc technology, particular at the time of Netravali (circa 1986), was an analog technology (see e.g., en.wikipedia.org/wiki/Videodisc). Digital disks were not commercialized until many years later. Thus, Netravali is comparing camera images against the *analog* images that are stored in video discs. Any desire to store similar images from the camera would therefore require that such images be analog, which cannot occur using a digital camera that directly outputs digital images.

In addition, Netravali teaches that the *same* A/D digitizer 202 is used to convert the analog images output by the camera 203 and the video disc 101 (see Fig. 1, showing the output of the video disc 101 connected to the same digitizer 202 as the camera 203). One skilled in the art would know that using the same A/D for both stored analog images and camera analog images is useful for avoiding any distorting contribution to the digitized images that would result by using different A/D converters, such as one incorporated into the camera, and a different one for the video disc. In such an instance,

differences in the digital converters would need to be compensated for, a feature not discussed in the reference. Utilizing a digital camera instead of the analog camera 203 would therefore clearly change the principle of operation of the Netravali system, as different digitizers would be utilized, leading to potential inaccuracies. When providing modifications to the prior art, the proposed modification cannot render the prior art unsatisfactory for its intended purpose, or change the principle of operation of a reference (MPEP §2143.01). If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125. In this case, by substituting a digital camera for an analog camera, distortions in the use of different A/D converters are introduced that would need to be compensated for, thus substantially changing the principle of operation of the Netravali system. Thus, it would not be proper to modify the Netravali reference to utilize a camera that directly outputs digital images.

Hwang does not overcome the shortcomings of Netravali because Hwang also teaches the use of a converter (in this case using a CPU) for converting an analog image into a digital image (see col. 3, lines 22-35 and claim 1). Thus, the cited claims are patentable over the combination of Netravali with Hwang, as are the claims dependent thereon.

Regarding claim 49, the claim specifically recites a comparison “to detect movement of an object”. Claim 50 recites similar features. The Examiner asserts that such a teaching is found in the Netravali reference, without providing any citation to where that teaching is found. A close review of the reference has failed to provide any such feature relating to detecting movement of an object, and thus claims 49 and 50 are patentable over Netravali. In particular, since the reference does not appear to teach comparing two images from the camera, but instead an image from the camera to an image previously stored on a video disc, detection of movement is probably not even practical with such a setup. Instead, it is clear that the purpose of Netravali is merely to recognize objects, not detect their movement (see background).

Hwang fails to overcome the shortcomings of Netravali, and thus claims 49 and 50 are patentable over the combination as well, as are the claims dependent thereon.

Regarding claims 55 and 56, both recite “image portions being compared to the image data in the reference memory by determining a correlation between pixels”. For this feature, the Examiner apparently cites Netravali using two-dimensional correlations or template matching, where searching is done according to certain pixel areas. However, nowhere does the reference actually teach that *correlation between pixels* is accomplished, as the section cited by the Examiner merely teaches a tracing procedure based on certain pixel locations. The reference does not in fact teach that pixel correlations are examined, but instead clearly teaches that the feature analyzer 102 looks at *regions*, not pixels (see col. 5 lines 3-7 and lines 34-48). Thus, the reference fails to teach the cited feature of the claim, and Hwang fails to overcome this shortcoming. Thus, claims 55 and 56, and the claims dependent thereon, are patentable over the reference.

Furthermore, claim 56 recites that “images that have changed in the space are detected and stored in a memory”, a feature also not found in the cited references, and thus claim 56 is also patentable over the references for this reason as well.

Regarding claims 22, 26, and 51-54 which specifically recite the use of two cameras for receiving images, the Examiner argues that Boyette teaches such a system. However, for the following reasons, the combination fails to teach the features of these claims.

Regarding claim 51, as amended, the claim recites that “images that have changed in the space are detected and stored in a memory”, a feature discussed above, and not found in any of the references.

Regarding claim 53, as amended, the claims require:

a first movably mounted camera adapted for receiving images of a space to be monitored *for monitoring certain characteristics of the space;*

a second camera adapted for receiving
additional images of the space *for monitoring*
different characteristics of the space;

(emphasis added). None of the references teach that one character monitors certain characteristics in a space, whereas the other cameral monitors different characteristics of a space. In particular, Boyette teaches that different cameras are actually monitoring *different* spaces, (see Figs. 1 and 2b). Thus, claim 53 and the claims dependent thereon, are patentable over the references.

New Claims Analysis

New claims 58 and 59 put allowable claims 23 and 27 into independent form, and thus are allowable.

In consideration of the foregoing analysis, it is respectfully submitted that the present application is in a condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in a condition for allowance, the examiner is invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present application.

If there are any additional fees resulting from this communication, please charge same to our Deposit Account No. 16-0820, our Order No. JBA-29520US1.

Respectfully submitted,

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January 19, 2012

Statement of Service

According to Rule 248, a copy of this amendment is being provided to the third party requestor at the address listed below by certified mail, a copy of the mailing receipt of which is attached hereto:

Mark S. Hubert
2300 SW First Avenue
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Portland, OR 97201

This statement, signed by the attorney of record, complies with the requirements of section a(4) and b(2) of Rule 248, and thus provides sufficient proof of service.

Respectfully submitted,

PEARNE & GORDON, LLP

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January 19, 2012